

In accordance with the adoption of an amendment to the Constitution of the A. A. S., Drs. Bessey and Halsted were chosen to represent the Society on the Council of the Association at the sessions just finished.

A committee consisting of Drs. Wm. Trelease, N. L. Britton and B. L. Robinson was appointed to report upon the condition of the National Herbarium, and to recommend changes for its improvement.

As a result of consideration of the report of the committee on the policy of the Society appointed a year ago, it was resolved "That it is the present policy of the Society to accumulate invested funds until the annual income, interest and dues, is at least \$500, and then to use such income yearly, or at greater or less intervals, as circumstance may dictate, for the best advancement of botanical knowledge."

The address of the retiring President at the next annual meeting will be delivered by Professor B. D. Halsted, who presided over the session, and whose term of office has just expired.

The officers for the ensuing year are :

President, J. C. Arthur.

Vice-President, B. T. Galloway.

Treasurer, C. A. Hollick.

Secretary, D. T. MacDougal.

Councillors, C. E. Bessey and Wm. Trelease.

D. T. MACDOUGAL,

Secretary.

NEW YORK BOTANICAL GARDEN,
BRONX PARK, N. Y. CITY.

THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

FELLOWS ELECTED AT THE DENVER MEETING.

John Almy, Instructor in Physics, University of Nebraska, Lincoln, Nebr. (B).

J. H. Appleton, Professor of Chemistry, Brown University, Providence, R. I. (C).

Howard Ayers, President, University of Cincinnati, Cincinnati, Ohio (F).

Solon I. Bailey, Associate Professor of Astronomy, Harvard University, Cambridge, Mass. (A).

Simeon E. Baldwin, Associate Judge of Supreme Court of Errors, New Haven, Conn. (I).

W. D. Bancroft, Professor of Physical Chemistry, Cornell University, Ithaca, N. Y. (C).

C. R. Bardeen, Anatomical Laboratory, Wolfe and Monument Sts., Baltimore, Md. (F, K).

A. E. Beardsley, Professor of Biology, State Normal School, Greeley, Colo. (F).

John Andrew Bergström, Associate Professor of Psychology and Pedagogy, Indiana University, Bloomington, Ind. (K).

Ernst A. Bessey, Department of Agriculture, Washington, D. C. (G).

Frank W. Blackmar, Professor of Sociology and Economics, University of Kansas, Lawrence, Kansas, (I).

E. M. Blake, University of California, Berkeley, Cal. (A).

Thaddeus L. Bolton, Department Philosophy, University of Nebraska, Lincoln, Nebr. (K).

Louis F. G. Bouscaren, Chief Engineer, Water Works Commission, Cincinnati, Ohio (D).

Charles L. Bouton, Instructor in Mathematics, Harvard University, Cambridge, Mass. (A).

Wm. L. Bray, Professor of Botany, University of Texas, Austin, Texas (G).

Lyman J. Briggs, U. S. Dept. of Agriculture, Washington, D. C. (B).

S. J. Brown, U. S. N., U. S. Naval Academy, Annapolis, Md. (A).

Lawrence Bruner, Professor of Entomology, University of Nebraska, Lincoln, Nebr. (F).

Edward F. Buchner, New York, N. Y. (H, K).

Luther Burbank, Horticulturist, Santa Rosa, Cal. (G).

E. S. Burgess, Botanist, 11 W. 88th St., New York, N. Y. (G).

E. A. Burt, Professor of Natural History, Middlebury College, Middlebury, Vt. (G).

William Cain, Professor of Mathematics, University of North Carolina, Chapel Hill, N. C. (A, D).

Florian Cajori, Professor of Mathematics, Colorado College, Colorado Springs, Colo. (A).

C. N. Calkins, Instructor in Zoology, Columbia University, New York, N. Y. (F).

F. K. Cameron, Bureau of Soils, U. S. Department of Agriculture, Washington, D. C. (C).

W. W. Campbell, Director, Lick Observatory, Mt. Hamilton, Cal. (A).

George L. Cannon, Instructor in Geology, Denver High School (No. 1), Denver, Col. (E).

H. W. Cattell, Pathologist, 3709 Spruce St., Philadelphia, Pa. (K).

Wm. M. Chauvenet, Mining Engineer, 620 Chestnut St., St. Louis, Mo. (C).

T. M. Cheesman, Pathologist, Garrison-on-Hudson, N. Y. (K).

C. M. Child, Instructor in Zoology, University of Chicago, Chicago, Ill. (F).

Frank Hurlbut Chittenden, Assistant Entomologist, U. S. Dept. Agriculture, Washington, D. C. (F).

Russell H. Chittenden, Dean Sheffield Scientific School, Yale University, New Haven, Conn. (C, K).

Frank H. Cilley, Mass. Inst. Technology, Boston, Mass. (A, B, D).

Gaylord Parsons Clark, Professor of Physiology, Syracuse University, Syracuse, N. Y. (F, K).

John S. Clark, 110 Boylston St., Boston, Mass. (I).

S. F. Clarke, Professor of Biology, Williams College, Williamstown, Mass. (F).

T. D. A. Cockerell, Entomologist, Las Vegas, N. M. (F).

Chas. W. Comstock, State School of Mines, Golden, Colo. (A, D).

Edwin Grant Conklin, Professor of Biology, University of Pennsylvania, Philadelphia, Pa. (F).

E. B. Copeland, Plant Physiologist, Morgantown, W. Va. (G).

L. C. Corbett, Horticulturist, U. S. Dept. of Agriculture, Washington, D. C. (G).

F. B. Crocker, Professor of Electrical Engineering, Columbia University, New York, N. Y. (B, D).

John Franklin Crowell, Bureau of Statistics, U. S. Treasury Dept., Washington, D. C. (I).

Edgar R. Cumings, Indiana University, Bloomington, Ind. (E).

Susan J. Cunningham, Professor of Mathematics and Astronomy, Swarthmore College, Swarthmore, Pa. (A).

Allerton Cushman, Instructor in Chemistry, Bryn Mawr College, Bryn Mawr, Pa. (C).

Arthur R. Cushny, Professor of Materia Medica and Therapeutics, University of Michigan, Ann Arbor, Mich. (K).

C. W. Dabney, President University of Tennessee, Knoxville, Tenn. (C).

Herman S. Davis, Director, International Latitude Station, Gaithersburg, Md. (A).

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E. B. Delabarre, Professor of Psychology, Brown University, Providence, R. I. (H, K).

David Worth Dennis, Professor of Geology and Biology, Earlham College, Richmond, Ind. (F).

Franklin Dexter, Associate Professor of Anatomy, Harvard Medical School, Boston, Mass. (K).

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Alice Eastwood, Academy of Sciences, San Francisco, Cal. (G).

Morton John Elrod, Professor of Biology, University of Montana, Missoula, Mont. (F).

Edmund Arthur Engler, President Polytechnic Institute, Worcester, Mass. (A).

Livingston Farrand, Adjunct Professor of Psychology, Columbia University, New York, N. Y. (H, K).

Pierre A. Fish, Ithaca, N. Y. (K).

Irving Fisher, Santa Barbara, Cal. (A, I).

Thomas S. Fiske, Professor of Mathematics, Columbia University, New York, N. Y. (A).

Austin Flint, Professor of Physiology, Cornell University Medical College, New York, N. Y. (F, K).

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Eben S. Wheeler, U. S. Assistant Engineer, Detroit, Mich. (D).

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William Morton Wheeler, Professor of Zoology, University of Texas, Austin, Texas (F).

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Ray Lyman Wilbur, Assistant Professor of Physiology, Stanford University, Stanford, Cal. (F, K).

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SCIENTIFIC BOOKS.

Diplodocus Marsh. *Its Osteology, Taxonomy and Probable Habits, with a Restoration of the Skeleton.* *Memoirs of the Carnegie Museum*, Vol. I., pp. 1-63, pl. I.-XIII.

The *Memoirs of the Carnegie Museum* open auspiciously with this valuable contribution by Mr. J. B. Hatcher, curator of the department of vertebrate paleontology and associate editor of the publications of the Museum. The subject is the description of two remarkable skeletons of the great sauropodous dinosaur *Diplodocus* discovered by the Museum expeditions of 1899 and 1900 on Sheep Creek, Albany County, Wyoming. The first specimen consists of forty-one vertebrae, which form an unbroken series from the second or axis vertebra to the twelfth vertebra of the tail, besides extensive parts of the appendicular skeleton, all in a remarkable

state of preservation. The fourteen cervicals alone measure 21 feet and the author estimates a total length of 68 feet for the vertebral column and skull. The second skeleton belongs to a smaller animal in which one of the hind limbs is perfectly preserved, and with the aid of a fore limb and of some characters taken from the tail of a specimen in the American Museum collection, Mr. Hatcher gives (Plate XIII.) by far the most perfect restoration of a Sauropod which has yet been published. The neck is extraordinarily long and slender, increasing in power and in the length of the centra near the chest. The back, including only eleven vertebrae with short centra is extremely short; while the long and heavy tail evidently balances the anterior portion of the column, and the sacrum forms the center of the body. The marvelously light and yet strong structure of the vertebrae is well brought out in the pen drawings by Mr. Weber, and the author adds a number of most useful new terms for the future description of these elaborate structures. Of the animal as a whole he observes:

The restoration at once reveals the unusual proportions of *Diplodocus*. The remarkable long neck and tail contrast strikingly with the short body. The hind limbs are longer than the fore limbs, and this fact, together with the enormous elevation of the spines of the sacra and posterior dorsals, fixes the sacral region as the highest in the vertebral column, a determination first made by Osborn. The powerful ilia, firmly united to the rigidly coossified sacra with lofty coalesced spines, together with the other pelvic elements proportionately well developed, at once emphasizes the paramount importance of the pelvic region and fixes it as the center of power and motion.

Among the new important points brought out in this Memoir are the following: First, the gradual transition from the paired spines of the neck to the highest single spines of the back; the clear description and definition of the remarkable cavities surrounding the vertebrae, intramural or inside of the bones as well as around the centra and neural arches; the modification of the first two dorsals especially for the support of the scapula; the presence of four true sacra and of one dorso-sacral or pelvic vertebra, strengthening the support of